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09/941,590	08/30/2001	Naoki Kuwata	MIPFP006	6411

25920　　　7590　　　07/30/2007	**EXAMINER**	
MARTINE PENILLA & GENCARELLA, LLP	AGGARWAL, YOGESH K	
710 LAKEWAY DRIVE		
SUITE 200	**ART UNIT**	**PAPER NUMBER**
SUNNYVALE, CA 94085	2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 May 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-56</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-56</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 August 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some * c)☐ None of:

         1.☒ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date <u>03/20/2007</u>.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-56 have been considered but are moot in

view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4-8, 11-18, 21, 23, 27-30, 33-38, 43-45 and 51-56 are rejected under 35

U.S.C. 103(a) as being unpatentable over Kuno et al. (US Patent # 6,538,242) in view of Ohkubo

(US Patent # 7,136,187).

[Claim 1]

Kuno et al. teaches an image data generating apparatus (figure 1 and 16-18, camera 1)

comprising means for generating image data (col. 5 line 64-col. 6 line 4, col. 11 line 60-col. 12

line 2); means for generating information that designates color space information to be used by

an image output apparatus (spectral responsivity characteristic used for conversion of color space

as taught in col. 6 lines 60-65) of said image data from an input color space to an output color

space by said image output apparatus (col. 12 lines 3-65, figures 16-19); and means for storing

said image data in association with said information that designates said color space information

(col. 12 lines 45-65).

Kuno fails to teach information that reflects image output characteristics of said image

output apparatus and used for color space conversion. However Ohkubo teaches at col. 7 lines

12-30, figure 1, coordinate values Lab (Output) derived through conversion by the LUT 50 are

converted into the RGB data for an output device 70 such as a digital printer in accordance with

an output media characteristic conversion defined by an output media characteristic conversion

definition 52 based on output characteristics of the output device 70. The output device 70

outputs an image to an output media 71 such as a printing paper.

Therefore taking the combined teachings of Kuno and Ohkubo, it would be obvious to

one skilled in the art at the time of the invention to have been motivated to have information that

reflects image output characteristics of said image output apparatus and used for color space

conversion to be used in the system of Kuno as taught in Ohkubo in order to generate an image

having a preferable tone of color on the output media as taught in Ohkubo (col. 7 lines 22-24).

[Claim 4]

Kuno teaches a means for assembling an output file that contains said image data, and said color

space information (col. 12 lines 49-65, figures 16-19).

[Claim 5]

Kuno teaches an interface for communicating said output file to said external device (col. 11 line

60-col. 12 line 2, figure 16).

[Claim 6]

Claim 6 is similar to claim 1 except means for designating with color space information an

output color space to be used by an image processing apparatus in color space conversion, said

image processing apparatus being a different apparatus than said means for acquiring data

(spectral responsivity characteristic used for conversion of color space as taught in col. 6 lines

60-65, col. 12 lines 3-65, figures 16-19).

[Claim 7]

The second color space (RGB) has a gamut width at least equal to a color space like RGB (col.

12 lines 55-65, RGB color space used in the synthesis of the image data which inherently has a

gamut width at least equal to a color space like RGB or CMYK).

[Claims 8, 11-17]

Method claims 8, 11-17 corresponds to apparatus claims 1, 4-7 and are therefore analyzed and

rejected the same as previously discussed with respect to apparatus claims 1, 4-7.

[Claim 18]

Kuno teaches matrix values used for color spaces (col. 13 lines 19-59).

[Claim 21]

Kuno teaches that the image data generation mechanism is a camera (col. 5 line 64-col. 6 line 4).

[Claim 23]

Claim 23 recite what was discussed with respect to claim 4.

[Claim 27]

Kuno teaches a communication cable or network for communicating said output file to said

external device (col. 11 line 60-col. 12 line 2), which would inherently be transmitted as an

electric signal.

[Claims 28-29]

Claims 28 and 29 recite what was discussed with respect to claims 6 and 7.

[Claims 30, 33-35]

Computer program storing claims 30, 33-35 corresponds to apparatus claims 1, 4, 6 and 7 and

are therefore analyzed and rejected the same as previously discussed with respect to apparatus

claims 1, 4, 6 and 7 respectively.

[Claim 38]

Kuno teaches an image processing apparatus for performing image processing on image files

containing image data and color space information, said image data and said color space

information being input from an independent image data generating apparatus, comprising:

means for acquiring an image file containing image data; means for retrieving said color space

information from said image file acquired by said means for acquiring, wherein said color space

information designating color space conversion (spectral responsivity characteristic used for

conversion of color space as taught in col. 6 lines 60-65) designates a color space from an input

color space to an output color space by an image processing apparatus; and means for converting

the color space of said image data based on said color space information retrieved by said means

for retrieving (col. 12 lines 3-65, figures 16-19).

[Claims 36 and 43]

Computer program storing claim 36 and method claim 43 correspond to apparatus claim 38 and

are therefore analyzed and rejected the same as previously discussed with respect to apparatus

claim 38.

[Claims 37 and 44]

Computer program storing claims 37 and 44 correspond to apparatus claim 39 and are therefore

analyzed and rejected the same as previously discussed with respect to apparatus claim 39.

[Claim 45]

Claim 45 recites what was discussed with respect to claim 38.

[Claim 51]

Kuno teaches a communication cable or network for communicating said output file to said

external device (col. 11 line 60-col. 12 line 2), which would inherently be transmitted as an

electric signal.

[Claim 52]

Kuno et al. teaches an image data generating apparatus (figure 1 and 16-18, camera 1)

comprising means for generating image data (col. 5 line 64-col. 6 line 4, col. 11 line 60-col. 12

line 2); means for generating color space information designating color space conversion

(spectral responsivity characteristic used for conversion of color space as taught in col. 6 lines

60-65) of said image data from an input color space to an output color space by an image

processing apparatus (col. 12 lines 3-65, figures 16-19); and means for storing said image data in

association with said color space information (col. 12 lines 45-65) and the image processing

apparatus (figure 16, image output device 15), including means for acquiring the image file

containing the image data and the color space information, means for retrieving said color space

information from said image file, and means for converting the color space of said image data

based on said color space information retrieved by said means for retrieving (col. 12 lines 45-

65).

[Claim 53]

Claim 53 recites what was previously discussed with respect to claims 6 and 52.

[Claim 54]

Method claim 54 corresponds to apparatus claim 52 and is therefore analyzed and rejected the

same as previously discussed with respect to apparatus claim 52.

[Claim 55]

Claim 55 recites what was discussed with respect to claims 17 and 52.

[Claim 56]

Claim 56 recite what was discussed with respect to claims 6, 17 and 52.

4.   Claims 2, 3, 9, 10, 19, 20, 31 and 32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kuno et al. (US Patent # 6,538,242), Ohkubo (US Patent # 7,136,187) and in

further view of Nakajima (US Patent # 6,650,437).

[Claims 2 and 3]

Kuno fails to teach means for designating color space information includes means for displaying

said plurality of items of color space information, and means for selecting one item of color

space information from among said displayed items of color space information.

However Nakajima teaches an image information exchanger device 14 like a PC (col. 11

lines 35-42) has a hard disk 88 that functions as a spool 90 (col. 11 lines 49-56) and is a means

for storing a plurality of items of color space information designated for different types of color

spaces and a plurality of combinations of identifying information (e.g. different values of color

space =1,2,3 corresponds to LUT1, LUT2 and LUT3) for candidate image processing

apparatuses (different types of scanners A, B and C) and associated color space information for

each candidate image processing apparatus (col. 15 lines 10-64, figure 5). A image information

exchanger device 14 which is a PC as stated (col. 11 lines 35-42) has a display device 56 and

keyboard 58 like one shown in figure 2 which can inherently be used as a means for designating

color space by displaying said plurality of items of color space information on the monitor 56,

and selecting one item of color space information (by designating color space values 1, 2 or 3)

and candidate image processing apparatuses from among the color spaces (LUT 1, LUT2, LUT3)

and candidate image processing apparatuses (scanners A, B and C) information by the keyboard

56 which are stored in the hard disk.

Therefore taking the combined teachings of Kuno, Ohkubo and Nakajima, it would have

been obvious to one skilled in the art to have been motivated to have means for designating color

space information includes means for displaying said plurality of items of color space

information, and means for selecting one item of color space information from among said

displayed items of color space information in order for the user to visualize the color display

information on the display thereby making it more user-friendly.

[Claims 9-10,19-20]

Claims 9, 10, 19 and 20 recite what was discussed with respect to claims 2 and 3.

[Claims 31, 32]

Computer program storing claims 31 and 32 corresponds to apparatus claims 2 and 3 and are

therefore analyzed and rejected the same as previously discussed with respect to apparatus

claims 2 and 3 respectively.

5.   Claims 39 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuno et

al. (US Patent # 6,538,242), Ohkubo (US Patent # 7,136,187) and in further view of Anabuki

(US Patent # 6,441,913).

[Claim 39]

Kuno fails to teach f said color space information is not retrieved, said means for converting the color space converts the color space of said image data based on predetermined color space information. However Anabuki teaches that if the image structure information is not present, the image-structure information may be extracted from the whole image data or preset values may be used for the image structure portion (col. 7 lines 52-56).

Therefore taking the combined teachings of Kuno, Ohkubo and Nakajima, it would have been obvious to one skilled in the art to have been motivated to have used predetermined color space to process the image data if the color space information is not retrieved which reduces the overall load on the CPU making the process easier.

[Claim 46]

Claim 46 recites what was discussed with respect to claim 39.

6.   Claims 22, 26, 40-42 and 47-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuno et al. (US Patent # 6,538,242), Ohkubo (US Patent # 7,136,187) and in further view of Buhr et al. (US Patent # 5,528,339).

[Claim 22]

Kuno teaches that the image pick up device 1 is a camera but fails to teach wherein the image generation mechanism is a DSC. However Buhr teaches that the device generating the image and color space information to be an electronic cameras in order to capture the scenes independently (col. 26 lines 14-25, col. 14 lines 40-45). Therefore taking the combined teachings of Kuno, Ohkubo and Buhr, it would have been obvious to one skilled in the art to have been motivated to have the image generation mechanism being a DSC in order to capture the scenes independently instead of a scanner wherein the scenes are captured via a storage medium as an input.

[Claim 26]

Kuno teaches the limitations of claim 17 but fails to teach wherein the memory is a removable

memory card. However Buhr teaches that the image data and color space are stored on a Kodak

photo CD or a PCMCIA card (col. 26 lines 14-25, col. 14 lines 40-45) in order to have a portable

memory medium which can be easily be carried to any other device capable of color space

conversion. Therefore taking the combined teachings of Kuno, Ohkubo and Buhr, it would have

been obvious to one skilled in the art to have been motivated to have the image data and color

space are stored on a PCMCIA card in order to have a portable memory medium which can be

easily be carried to any other device capable of color space conversion

[Claims 40, 41]

Kuno teaches the limitations of claim 38 but fails to teach that the image data contained in said

image file is represented by a first color space, said first color space is YCC; said means for

acquiring an image file converts the color space of the image data contained in said image file

from said first color space to a second color space, said second color space is first RGB; and said

means for converting the color space converts the color space of said image data from said

second color space to a third color space, said third color space is a second RGB.

However Buhr et al. teach image data contained in said image file is represented by a first

color space, said first color space is YCC; said means for acquiring an image file converts the

color space of the image data contained in said image file from said first color space to a second

color space, said second color space is first RGB; and said means for converting the color space

converts the color space of said image data from said second color space to a third color space,

said third color space is a second RGB (col. 28 lines 32-47, figure 15) in order to convert the

image signals stored into appropriate color space for creating a reproduced image on the selected output device.

Therefore taking the combined teachings of Kuno, Ohkubo and Buhr, it would have been obvious to one skilled in the art to have been motivated to have the image data contained in said image file is represented by a first color space, YCC, means for acquiring an image file converts the color space of the image data contained in the image file from the first color space to a second color space, a first RGB and means for converting the color space converts the color space of said image data from said second color space to a third color space, a second RGB in order to convert the image signals stored into appropriate color space for creating a reproduced image on the selected output device.

[Claim 42]

It would be inherent (well known to one skilled in the art) that the second color space (first RGB, e.g. s-RGB) has a gamut width at least equal to a color space like RGB.

[Claims 47-49]

Claims 47-49 recite what was discussed with respect to claims 40-42.

[Claim 50]

Buhr teaches in figure 17 a third color space, CIELAB (col. 29 lines 42-61).

7.   Claims 16, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuno et al. (US Patent # 6,538,242), Ohkubo (US Patent # 7,136,187) in view of Parulski et al. (US Patent # 6,310,647).

[Claims 16 and 24]

Kuno teaches the limitations of claims 15 and 23 but fails that the propagated file structure is an

Exif file structure. However Parulski et al. teaches an image file format that is compatible with

both Flashpix and Exif (col. 3 lines 49-65) in order to have a standard (exif) that can be opened

by any computer application that incorporates a JPEG reader which is a widely used standard

compared to Flashpix that is relatively new.

Therefore taking the combined teachings of Kuno, Ohkubo and Parulski, it would have

been obvious to one skilled in the art to have been motivated to have used an Exif file structure

instead of Flashpix in order to have a standard (exif) that can be opened by any computer

application that incorporates a JPEG reader which is a widely used standard compared to

Flashpix that is relatively new.

[Claim 25]

Parulski teaches in Table 2 an Exif application marker (read as tag stored in a makernote portion)

storing color space values (col. 4 line 66).

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

9.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571)-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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